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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/645,969	08/22/2003	Charles M. Harvey	QKL-001	8389
21323	7590	07/28/2004	EXAMINER	
TESTA, HURWITZ & THIBEAULT, LLP HIGH STREET TOWER 125 HIGH STREET BOSTON, MA 02110			CHAMBERS, MICHAEL S	
			ART UNIT	PAPER NUMBER
			3711	

DATE MAILED: 07/28/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

10/645,969

Applicant(s)

HARVEY, CHARLES M.

Examiner

Mike Chambers

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 22 August 2003.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-15 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-15 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

## DETAILED ACTION

### ***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1 and 13 are rejected under 35 U.S.C. 102(b) as being anticipated by Lockwood. Lockwood discloses a

head portion comprising a head frame for receiving a mesh thereon (60), at least a distal end of the head frame being flexible; and a rigid, elongated stem portion extending from a proximal end of the head frame, the stem and head frame sharing at least a common continuous exterior material so as to define a unitary structure (fig 1 and 2 ). Regarding the claimed feature of a head and stem, in as much structure set forth by the applicant in the claims, the device of Lockwood is capable of use in the intended manner if so desired (See MPEP 2112).

As to claim 13 : Lockwood discloses an angled distal head (fig 2).

Also,

Claims 1,5 and 13 are rejected under 35 U.S.C. 102(b) as being anticipated by Brown. Brown discloses a

head portion comprising a head frame for receiving a mesh thereon (13), at least a distal end of the head frame being flexible; and a rigid, elongated stem portion extending from a proximal end of the head frame, the stem and head frame sharing at

least a common continuous exterior material so as to define a unitary structure (fig 2-1:76-90). Regarding the claimed feature of a head and stem, in as much structure set forth by the applicant in the claims, the device of Brown is capable of use in the intended manner if so desired (See MPEP 2112).

As to claim 5 : Brown discloses a integral continuous portions of a singular mechanical structure (fig 2-1:76-90).

As to claim 13 : Brown discloses an angled distal end (fig 4).

Also,

Claims 1-6,10-11,13-15 are rejected under 35 U.S.C. 102(b) as being anticipated by Miyamamoto et al. Miyamamoto et al discloses a

head portion comprising a head frame for receiving a mesh thereon (fig 3), at least a distal end of the head frame being flexible; and a rigid, elongated stem portion extending from a proximal end of the head frame, the stem and head frame sharing at least a common continuous exterior material so as to define a unitary structure (fig 3-1:52-57,2:61-3:5). Regarding the claimed feature of a head and stem, in as much structure set forth by the applicant in the claims, the device of Miyamamoto is capable of use in the intended manner if so desired (See MPEP 2112).

As to claim 2 : Miyamamoto et al discloses a mechanically joined unitary structure (fig 3,2:61-65). The sheath would be formed by the elastomer once the mold was removed.

As to claim 3 : Miyamamoto et al discloses a polymer (fig 1, 4:64-65)

As to claims 4 and 14 : Miyamamoto et al discloses a composite material (fig 1, 2:24-26).

As to claim 5 : Miyamamoto et al discloses an integrally continuous portions of a mechanical structure (fig 1, 2:61-3:5).

As to claim 6 : Miyamamoto et al discloses an integrally fabricated molding (fig 1, 4:64-65).

As to claim 10 : Miyamamoto et al discloses a composite material (fig 1, 2:24-26).

As to claim 11 : Miyamamoto et al discloses a flexible plastic (2:50-51)

As to claim 13 : Miyamamoto et al discloses an angled head frame (fig 2, 0 degree from center axis )

As to claim 15: Miyamamoto et al discloses glass, boron and carbon materials (2:65-3:5).

Also,

Claims 1-6,8,10-15 are rejected under 35 U.S.C. 102(b) as being anticipated by Feeney. Feeney discloses a

head portion comprising a head frame for receiving a mesh thereon (44), at least a distal end of the head frame being flexible; and a rigid, elongated stem portion extending from a proximal end of the head frame, the stem and head frame sharing at least a common continuous exterior material so as to define a unitary structure (fig 9-5:12-16). Regarding the claimed feature of a head and stem, in as much structure set forth by the applicant in the claims, the device of Feeney is capable of use in the intended manner if so desired (See MPEP 2112).

As to claim 2 : Feeney discloses a mechanically joined unitary structure (fig 9). The sheath would be formed by the polymer once the mold was removed.

As to claim 3 : Feeney discloses a polymer (1:63-65)

As to claims 4 and 14 : Feeney discloses a composite material (4:1).

As to claim 5 : Feeney discloses an integrally continuous portions of a mechanical structure (fig 9).

As to claim 6 : Feeney discloses an integrally fabricated molding (fig 9, 5:12-16).

As to claims 8 and 12 : Feeney discloses a combination of materials (2:10-13). The cross-sectional area of the stem (fig 9) would naturally have a higher rigidity due to the increased cross sectional area compared to the head.

As to claims 10 and 14: Feeney discloses a composite materials (5:12-16).

As to claim 11 : Feeney discloses a flexible plastic (3:63-64).

As to claim 13 : Feeney discloses an angled head frame (fig 2,3).

As to claim 15 : Feeney discloses a composite material (1:26-28).

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 8 and 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Miyamamoto et al in further in view of Molitor. Miyamamoto et al fails to clearly disclose a stem with a greater rigidity than the head . Molitor discloses a stem with a greater rigidity than the head ( fig 3, 4). It would have been obvious to one of ordinary skill in the art at the time of the invention to have employed the design of the Molitor device with the material of Miyamamoto et al in order to decrease the weight of the device. The

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cross-sectional area of the stem (fig 4) would naturally have a higher rigidity due to the increased cross sectional area compared to the head.

As to claim 12 : Molitor discloses a head with a greater flexibility than the stem. (The cross sectional area of the head will be more flexible due to the length and cross sectional area than the stem).

Claim 7 is rejected under 35 U.S.C. 103(a) as being unpatentable over Feeney. The amount of reinforcing material is a matter of design choice. The specification provides no unexpected results in using a reduced amount of reinforcing material. It would have been obvious to one of ordinary skill in the art to have selected an appropriate amount of reinforcing material in order to manufacture a lightweight and sturdy device to increase the satisfaction of the player.

Claim 9 is rejected under 35 U.S.C. 103(a) as being unpatentable over Feeney in view of Official Notice. Feeney discloses using a Teflon® mandrel (4:10). The use of various materials for a mandrel is well known in the art and Teflon is normally applied as a covering on a metal. It would have been obvious to one of ordinary skill in the art at the time of the invention to have used metal to fabricate the mandrel in order to reduce manufacturing costs.

### ***Conclusion***


Any inquiry concerning this communication or earlier communications from the examiner should be directed to Mike Chambers whose telephone number is 703-306-5516. The examiner can normally be reached on Mon-Fri 8:30-5:00.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Greg Vidovich can be reached on 703-308-1513. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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July 23, 2004

  
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